

a3 applied; that is, a region of lesser bending stiffness in the stent will exhibit greater bending in response to a given force applied in a direction normal to the stent long axis than a region of greater bending stiffness. In general, and in a preferred embodiment, the stiffness gradient is in a direction of decreasing stiffness on progressing from upstream to the downstream end of the stent, that is, from the more proximal to the more distal stent end, with the stent placed in a catheter. The stiffness gradient may be discontinuous, meaning that the gradient is formed of two or more segments of substantially uniform stiffness, or may be continuous along the length of the stent.

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Replace the paragraph starting on page 9, line 22, with the following paragraph:

a4 The wall of the stent can include a plurality of openings disposed along the length of the helical ribbon. The shape of the openings can be round, oval, square, rectangular, diamond, hexagon, or polygon, and the number, size, shape of openings can be varied. A preferred opening is a crossed-beam shape such as an "X", "+", "Z", or "I" shape. Preferably, each opening has one beam axis substantially transverse to the longitudinal axis of the contracted stent. One beam can be aligned transversely to the other. An example of a shape for the opening is illustrated at 17 in FIG. 1. The openings are "I" shaped whose "I" axis is substantially transverse to the longitudinal axis of the contracted stent. Another example of a suitable opening is shown in FIG. 2 which includes a modified "Z" shaped opening. In FIG. 2, the angle θ between an elongated central portion 15 and a terminal crossed-beam 18 is about 135°. The openings can be formed using conventional metal working processes such as die and punch, laser cutting, or chemical etching.

Replace the paragraph starting on page 13, line 22, with the following paragraph:

a5 The helical stent is loaded into a catheter as illustrated in FIGs. 10A-10C. The catheter and loaded stent form a device in accordance with another aspect of the invention. The device may additionally include a pusher wire for advancing the stent through the lumen of the catheter, as described below.